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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,484	04/18/2002	Tadamitsu Ryu	NAA-CAI-P30	6441

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EXAMINER

BATES, KEVIN T

ART UNIT PAPER NUMBER

2155

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/030,484

Applicant(s)

RYU, TADAMITSU

Examiner

Kevin Bates

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3-11-2002</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to a communication made on April 18, 2002.

The Foreign Priority Documents were received October 19, 2001.

The Information Disclosure Statement was received on March 11, 2002.

Claims 1-15 are pending in this application.

Information Disclosure Statement

The information disclosure statement filed March 11, 2002 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because have not been submitted with at least an abstract in english. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

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The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

Claim 1 is objected to because of the following informalities: it skips step c and go straight to step d. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 4, 6, 8, 10, 12, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhao (6081840).

Regarding claims 1 and 8, Zhao discloses a file management method in the distributed environment where a plurality of terminals are connected by means of a network and information is recorded in respective memory of some terminals distributed (Column 2, lines 57 – 67, where the local content servers are the terminals), said method comprising the steps of, 1) setting up in the individual terminal a file controller that manages files of its own terminal and controls exchange of information with the network (Column 8, lines 1 – 5), 2) producing a meta-index to identify a information with

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respect to said information within the network and registering storage place information (Column 6, lines 8 – 19) of an original and its copy file(s) (Column 6, lines 13 – 15, where it tracks the original files on the source server and the copies on the local content servers) each of which stores said information, in a meta-index storage part of the file controller in each terminal where the information is recorded (Column 5, lines 11 – 19), 3) in the case where an access demand to one information is requested from one terminal by a user through the network, referring to the meta-index in the meta-index storage part of the file controller at said one terminal (Column 9, lines 1 – 10), and (i) when the file storing said information exists in said one terminal, opening said file in the terminal (Column 2, lines 58 – 64), (ii) when the file storing said information does not exist in said one terminal, (a) copying the file of another terminal on said one terminal writing a storage place information in the meta-index of the file controller in one terminal and other concerned terminal(s), and opening the copied file (Column 2, lines 64 – 57), (b) opening the file in another terminal and transmitting the information of the opened file to the user of said one terminal through the network, or (c) transferring the file of another terminal to said one terminal, rewriting the storage place information of the meta-index, and opening the transferred file, and (4) in case where there is a change in the file recorded in one terminal, referring to the meta-index of said file recorded in the storage place information part of said one terminal, and updating synchronization the file in all other terminal(s) concerned the storage place(s) of which is (are) recorded (Column 5, lines 50 – 55; Column 8, lines 10 – 14).

Regarding claims 2 and 10, Zhao discloses A file management method according to claims 1 and 8, respectively, being characterized in that, the storage place information is composed of a terminal key which specified the terminal storing the file (Column 9, lines 6 – 8, where the Boolean flag tells which system/terminal the file is stored at) and an address where the position in memory controlled by the file controller in said terminal is specified (Column 6, lines 11 – 14).

Regarding claim 4 and 12, Zhao discloses a file management method according to claims 1 and 8, respectively, being characterized in that, it further includes steps of, providing the meta-index storage part of the each terminal with a table which counts access frequency to storage place registered therein, and copying transferring or deleting the file depending on load balance between the terminals, if necessary (Column 9, lines 55 – 65).

Regarding claims 6 and 14, Zhao discloses a file management method according to claims 1 and 8, respectively, being characterized in that, said file comprises at least one selected from a group consisting of data files and program files (Column 5, lines 6 – 12).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhao in view of Beizer (6240414).

Regarding claims 3 and 11, Zhao discloses a file management method according to claims 1 and 8, respectively.

Zhao does not explicitly indicate that it further includes steps of, where in user of said one terminal desires to use a plurality of the files discretely stored in the memory of its own terminal at the same time, (1) producing an intermediate file at new area in said memory of its own terminal by copying said files continuously, while registering a storage place of said intermediate file in the meta-index of each file, (2) referring to the meta-index and opening the intermediate file when an access demand for one of the files is requested by said user of said one terminal thereafter.

Beizer discloses a distributed file system where the system creates immediate files when a terminal opens up a file to make changes (Column 60 – 65) while registering a storage place of said intermediate file in the meta-index of each file (Column 7, lines 10 – 14) and that if another user opens up the same file, also opens up an intermediate file (Column 6, lines 17 – 18; lines 26 – 34, which shows that each can made changes to their local/immediate copies and those changes are then moved to the master copy; Column 6, lines 4 – 10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Beizer's teachings in Zhao's system in order to allow multiple users to make changes to the same file simultaneously (Column 5, lines 14 – 22).

Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhao in view of Orita (5163147)

Regarding claims 5 and 13, Zhao discloses a file management method according to claims 1 and 12, respectively.

Zhao does not explicitly indicate that the includes steps of, providing the file controller with a list that describes the reference authority of each terminal, and in the case where the file is copied on a terminal having no reference authority according to the necessary of the load balance, setting to said terminal a condition in which the copied file cannot be opened at said terminal.

Orita discloses a distributed file system that includes having a reference authority level of each user (Column 4, lines 33 – 52) and that a user having an access attempt on a file may not be opened if the user authority level is not great enough for the access attempt (Column 4, lines 49 – 65) for user programs and user files stored on the user device (Column 7 – 9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Orita's teaching of having authority levels for access requests on each file in the system in Zhao's system in order to make sure that there is sufficient security for each file in the system and have those authority levels depend on access type (Column 1, lines 30 – 43).

Claims 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhao in view of Utter (5815649).

Regarding claims 7, 9, and 15, Zhao discloses a file management method according to claims 1 and 8, respectively.

Zhao does not explicitly indicate that when a trouble is occurred in any of the terminals connected by the network, it further includes steps of, referring to the meta-index, and copying the information file stored in said troubled terminal from other terminal without trouble thereby conducting backup processing.

Utter discloses a distributed file system with a plurality of network nodes (Column 3, lines 51 – 57) which includes recovery from trouble situation which referring to a meta-index (Column 8, lines 54 – 61) and that moves copies of files form working devices onto a failed device to recover the storage of that device (Column 6, lines 42 – 61).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Utter's teaching on Zhao's system to allow Zhao's system to quickly recover from faults without necessary assistance (Column 6, lines 57 – 61).

Regarding claim 9, Zhao discloses a file management system according to claim 8.

Zhao does not explicitly indicate a group setting means for a group that makes the terminals belonging to said group possess the meta-index commonly.

Utter discloses a partition group (Column 4, lines 5 – 14) in a distributed file system (Column 3, lines 51 – 57), where they have a common meta-index (Column 8, lines 56 – 61).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Utter's idea of partition groups in Zhao's system in order to ensure there are at least two copies of every file and that if one group, or system goes down there will be at least one additional copy in order to recover from the failure (Column 6, lines 42 – 61).

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent No. 5978791 issued to Farber, because it discloses replicated files on a distributed file system.

U. S. Patent No. 5701462 issued to Whitney, because it discloses a distributed file system with a unified name space.

U. S. Patent No. 5963944 issued to Adams, because it discloses distributing and indexing files in a networked system.

U. S. Patent No. 6070191 issued to Narendran, because it discloses replicating items to load balance.

U. S. Patent No. 5012405 issued to Nishikado, because it discloses a file management system.

U. S. Patent No. 5689706 issued to Rao, because it discloses replicating files for distribution onto multiple computing systems.

U. S. Patent No. 5588147 issued to Neeman, because it discloses replicating files for providing local copies to users.

U. S. Patent No. 5764972 issued to Crouse, because it discloses copying files and tracking those copies.

Conclusion

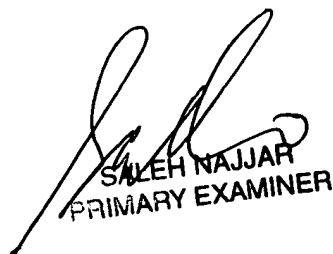
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Bates whose telephone number is (571) 272-3980. The examiner can normally be reached on 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NB

KB
August 29, 2005


SALEH NAJJAR
PRIMARY EXAMINER